

7. Determine each product.

a)  $\left(-\frac{1}{3}\right)\left(\frac{2}{5}\right)$

b)  $\left(\frac{1}{4}\right)\left(-\frac{3}{5}\right)$

c)  $\left(\frac{4}{5}\right)\left(\frac{1}{2}\right)$

d)  $\left(-\frac{5}{6}\right)\left(-\frac{2}{3}\right)$

9. On February 5, 2008:

- a) The price of a share in Petro-Canada changed by  $-\$0.80$ .  
A person owns 120 shares. By how much did the shares change in value that day?
- b) The price of a share in Research in Motion changed by  $-\$2.10$ .  
A person owns 50 shares. By how much did the shares change in value that day?
- c) The price of a share in Shoppers Drug Mart changed by  $\$0.23$ .  
A person owns 65 shares. By how much did the shares change in value that day?

10. A diver descends at an average speed of 10.4 m/min. Use rational numbers to write her depth after 3.6 min.

12. Determine each product.

a)  $\left(\frac{5}{4}\right)\left(-\frac{16}{5}\right)$

b)  $\left(-\frac{2}{3}\right)\left(-\frac{5}{6}\right)$

c)  $\left(-2\frac{8}{9}\right)\left(5\frac{1}{8}\right)$

d)  $\left(-4\frac{2}{5}\right)\left(-\frac{5}{3}\right)$

14. A courier company has a bank account balance of  $\$45\,567.87$ . The company must repaint all its 25 delivery trucks at an average cost of  $\$3457.25$  per truck.
- a) Write a multiplication statement with rational numbers to determine the cost of painting the trucks.
- b) What is the bank account balance after the bill for painting has been paid? Explain your result.

16. Determine the missing number in each product statement.

What strategies did you use?

a)  $-3.25 \times \square = 15.275$     b)  $-\frac{5}{4} \times \square = -\frac{35}{8}$

c)  $\square \times 0.045 = -0.018$     d)  $\square \times 3\frac{3}{4} = 5\frac{1}{4}$

17. A positive rational number is multiplied by a negative rational number. Is it possible that the product is closer to 0 than either of the numbers being multiplied? Explain.
18. Karen used her calculator to evaluate  $-\frac{89}{91} \times \frac{31}{86}$ . She reported the product as about  $-0.352\,542\,806$ .
- a) How did Karen know that the value is approximate?
- b) What is the exact answer?